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GEORGIA STATE COLLEGE
OF BUSINESS ADMINISTRATION
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Authors and Articles

ERNST W. SWANSON

"The Changing Economic System: Part I. Large Firms Remaking Economy"

Dr. Swanson's discussion of the changing economic system will be presented in two parts. Part I is concerned with the forces which have led to the evolution of the "new giant"—the large firm; the greater efficiency of the giant firm; the activity specialization possible; its replacement of the market as the primary level of organization; and its competitive situation which makes for better products at lower prices.

Part II, to appear in a later issue, will be concerned with innovation and the changing roles of the entrepreneur and the consumer.

Dr. Swanson is head, Department of Economics, School of General Studies, North Carolina State College. His article is abridged from a paper given at the Southern Economic Association, November 1960.

WILLIAM M. BROWN
W. T. TUCKER

"The Marketing Center: Vanishing Shelf Space"

The authors point out that for years the size of the supermarket was on the increase, but the trend toward larger stores and cluttered aisle space has reversed. With the enormous increase in the number of items that are stocked in the average supermarket, obviously shelf space increasingly is at a premium. Though specific relationships between amount and location of shelf space for a given commodity and the sales of that commodity are still undetermined, the authors present certain hypotheses (based on comparable promotional tools), suggesting that "further knowledge of relationships in the area promises to increase the already high levels of efficiency in food marketing."

Authors Brown and Tucker are Associate Professor of Marketing Administration and Professor of Marketing Administration, respectively, College of Business Administration, University of Texas.

A. H. MEADOWS

"The Management Forum: Making Employees Capitalists Insures the Future of the American Capitalistic System"

As stated in the title of his article, Mr. Meadows contends that "the future of our capitalistic system depends upon what kind of capitalists we make of all our employees, with due regard to the interest of stockholders." He suggests a benefit program for employees, beginning with hospitalization and medical costs, followed by group life insurance, a pension plan, and then if possible a thrift or profit-sharing plan through which employees can acquire company stock. He describes the latter plan as used by General American, a plan which promotes employee-loyalty and through which it is possible for the "average employee to have an estate of between $50,000 and $100,000."

Mr. Meadows is chairman, General American Oil Company of Texas.

C. M. VANSTORY, JR.
JAMES B. THURSTON
CHAUNCEY W. LEVER

"Southeastern Corner: Industrial Development"

This month's Southeastern Corner quotes the ideas of three southern bankers on industrial development. Mr. Vanstory is chairman of the board, North Carolina National Bank, and president of the North Carolina Bankers Association; Mr. Thurston is in the Advertising & Public Relations Department, Union Planters National Bank; and Mr. Lever is vice president, the South Carolina National Bank; National, Correspondent Bank, and Commercial and Industrial Development Divisions.

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THE CHANGING ECONOMIC SYSTEM

Ernst W. Swanson

Part I. Large Firms Remaking Economy: Activity Specialization, the Key

Over recent decades the organization of economic activities has been undergoing a major transformation. While there are no determinate stages to this process—as Marxian doctrine would have us believe—there nevertheless appears to be a succession of changes. What the next change will be is uncertain. The speculations about it are numerous and what is offered here is but one of many.

Ideas Generate Environmental Change

Just as an infinite number of physical systems may be possible, an infinite number of economic systems may also be possible. Man has far from reached the limit of his ability to create new systems, whatever their nature. Contrary to the Marxian sociology, man's ideas are the antecedents of change in his environment. He influences his socioeconomic setting, and in turn he is influenced by it. But the ideas about change arise with the individual and not from the environment. That socioeconomic systems are transformed without manifest interference from man is a point of view hardly consistent with the nature of man and the world in which he lives. Today, he is no longer at the mercy of esoteric forces. Animism is not an acceptable conception of the nature of the world and man.

As man proceeds towards greater and greater freedom, significant transformation of the economic order which we know as the private enterprise system is perhaps inevitable. Ideas generally are changing, and with the changes in the understanding of the physical world and man himself there must come changes in the understanding of the socioeconomic world. This does not mean, however, that the private enterprise system will evaporate. No doubt certain features of it will as other organizational features possessing greater efficiency develop and are adopted. But important elements of it will survive. Man's ingenuity has not yet eclipsed certain of the virtues which he has, over the decades, built into the private enterprise economy.

While the private enterprise economy is being reshaped, a new individualism is in the making, as the drift towards the proletarian society may well be on the wane. The groupism of the last generation appears to be but the means to the transformation of the contemporary private enterprise economy into something much more advanced in organization than what it is now. At the same time a new intellectualism is on the

Note: Dr. Swanson is head of the Department of Economics, School of General Studies, North Carolina State College.

Author's note: I am indebted to my colleagues, Cleon Harrell and Bernard Olsen, for their very helpful comments. The errors and omissions are my own.

move, and no period of intellectualism has flowered except by virtue of the individual's contribution and stewardship. In this new individualism there may be found a socioeconomic structure of tremendous potentials—if the peep at the future through the legendary keyhole has not been too much blurred by the immediate surroundings.

COMPETITION, SIZE, AND TECHNOLOGY

The New World of Giants

Perhaps one of the most debated, if not one of the chief, characteristics of the modern enterprise economy is the rise of the giant firm. Although bigness today is of a different breed than that which he visualized, Karl Marx was among the enthusiastic supporters of the trend, already discernible in his time. He saw in it both promises of great efficiency and, to be sure, the opportunity for socialization of industry. For possibly different reasons, many of the free enterprise inclination also have been, and are, enthusiastic supporters of bigness. Sometimes realism and idealism are mixed without the benefit of clergy. The reasons for the trend towards bigness are found both on the demand and the supply sides.

"Supply" Forces

First, on the supply side, man has learned to control most effectively large areas of his environment and, particularly, its economic sector. To effect this control he is continually devising new ways of organizing economic activity, and to date the improvements have been many and important. He has succeeded in producing vast quantities of an almost infinite number of products.

Second, coupled with his ability to organize is the ability to use technology. The one is the handmaiden of the other. The result has been, as everyone knows, a great rise in productive efficiency, in both the engineering and economic connotations of the word. No one puts the proposition more pointedly and succinctly than does Professor Lord, who writes:

> . . . the innovations, introduced by a few energetic and capable men, fallen in fruitful soil, have done more to revolutionize the world than all the ideas of liberty, fraternity, and equality. Boulton has defeated Rousseau, the workmen of Soho and Eturia have a greater influence than the Paris mob. . . .[1]

Third, man has learned to transmit knowhow and directives under most demanding conditions. Long lines of men, machines, and materials stretch on, from the beginning of the production process to the delivery of the finished product—coordination of which stresses "communication" and advanced learning techniques. Because of these three factors especially, the business firm has grown to new magnitudes.

"Demand" Forces

There are also factors operating on the demand side that have aided and *even demanded such growth.* First, there is the widespread desire for an ever-rising plane of living and for mass output of goods and services for hordes of people throughout the world. The small firm, steeped in the traditions of handicraft, has been unable to cope with these requirements.

Second, the consumer is becoming more and more the judge of what is desirable in goods and services. As man achieves emancipation in each and every way, his horizons broaden, his goals take on new meanings, and he participates more and more in the determination of his goals—a dynamic manifestation of the advancing creative capacity of man. A new mode of organization of economic activity is vital to this metamorphosis.

Small Firms Generated "Atomistic" Economic Ideology of Last Century

Reflecting upon the birth and rise of the private enterprise economy, it is not entirely absurd to suggest that the small factory, shopkeeper society of the eighteenth and early nineteenth centuries and the then largely atomistic conception of the organization of economic activity are the opposite sides of the same coin and a convenience of the times. As long as the producers themselves governed largely the nature of the goods which they produced, as long as economic activity was conceived as necessarily handicraft in specialization of men and materials, and as long as the markets were primarily local, the concept of atomistic competition was quite apropos to both the normative and behavioral ways of economic thinking. An atomisticly competitive atmosphere appears especially natural in a world viewed in the light of the tenets of classical mechanics and its easy-going determinateness. It was an atomistic society in belief and behavior.

The Impact of Steel, Electric Motors, the Assembly Line, etc.

But economic organization could not remain atomistic forever. Technological revolutions were already in the making to change it. The invention in the middle of the nineteenth century of the Bessemer and open-hearth furnaces for steel-making propelled the revolution in economic organization initiated by the steam engine's innovation to new heights. It made possible the greatest change in man's way of living up to that time in his history. Steel was soon substituted on nearly all sides for iron and wood. A new, high-efficiency, low-cost production structure based on this new metal evolved and blossomed almost immediately. Shortly thereafter, the continuous-flow steel mill was designed

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[1]John Lord, *Capital and Steam Power* (London: P. S. King & Son, Ltd., 1923), p. 235.

and developed and a new form of machine was born. It laid the foundation for automation. In rapid succession came the machine tool, the combinations of machines of production and of machine tools, and a host of physical structures essential to the formation of the big firm and the economic foundation and institutional framework on which it rests.

A few decades after these major advances, the electric motor was made operational. Each machine was thus given its own motive power. All sorts of productive processes, formerly handicraft performed, were converted into mechanized operations, and modern machine specialization was born. No longer were machines confined to the area of the central driveshaft, but they could be placed in such order and such location as would permit the best possible mechanization of production and manufacturing, and even chemical processes. Now the plant could be extended infinitely. To cap the climax, the assembly-line method of finishing products was conceived, and so-called mass production was truly begun. It came into full fruition as electronic computers and electromagnetic controls were applied to the machines to direct and control production with such precision as handicraft methods cannot equal. *Bigness is thus joined with intensity of use,* perhaps the ultimate principle in the combination of men, materials, and machines.

Large Scale Manufacturing Now Inevitable—Brings Changes in Society

Except in products still having restricted markets, the small manufacturing firm, handicraft organized, is obsolete. No small firm can compete on a cost basis—or on a quality basis—with the electromagnetic-mechanical organization of economic activity. The new firm that has evolved can acquire managerial, research, and engineering talents which the small plant cannot possibly afford, let alone administer. Out of these capabilities flows an almost endless stream of new products and new methods to produce these products, at prices low enough to make possible their almost universal sale, from automobiles and housing on down to the smallest items.

The new giant is revolutionizing not only the meaning of competition but virtually the whole organization of economic activity. It has already changed markedly the basic organization of economic activity. It has minimized the need for the formal market in a number of respects. It has changed the nature of the production process in most respects. It has placed the worker and the consumer in relationships significantly different from those established under the rule of the small firm.

To be sure, these changes have been attacked by many, by those who do not like change of any kind and by those who are fearful that the competitive free enterprise system is at an end. There are undesirable features, no doubt. At times the pressures on prices seem far too strong for the good of the economic community. And the giant is said to possess powers too great for even the modern economic order. Yet the tremendous output and the wide variety of products available today could not be had without these giants. And the costs of these products in the final analysis are probably far lower than they would have been had the firms been smaller and more numerous. Here is the paradox of paradoxes![2] Certain features of it are to be looked at presently.

Even the use of technology has come in for its share of criticism. Some of the objections have been raised by labor unions concerned that their members will be displaced. Other criticism, possibly a sizable portion of the total, rests upon a misconception of the nature of modern science and the technology which it generates. This misconception stems largely from a nineteenth century perspective. Modern scientific advances are confused with scienticism. The control of production by other means than the market place is construed as wholly mechanistic and instrumentalistic. But the modern day perspective and the new understanding of science do not necessarily sanction instrumentalism. The mechanistic interpretation of man and the world has no place in the modern scheme of things. If anything, contemporary science is quite indeterministic in many important respects, and it abhors a mechanistic construction of man's behavior as a form of dangerous positivism. Instead, it envisages man in new ways and it seeks to free him as he never before has been free.

TECHNOLOGY AND THE LARGE FIRM

Advancing Technology—Great Competitive Force

Bits of ideas gathered here and there and pieced together support the position taken by Schumpeter; namely, that in the long run technology is a far more powerful determinant of competition in the private enterprise economy than may be the number of firms in the given industry. Indeed, the dynamics of technology may make the position of even the large firm exceedingly tenuous.

The theory of imperfect competition (Joan Robinson) or the theory of monopolistic competition (Edward Chamberlain) are much too short-run, too static, to afford an adequate expression of the role that competition does play in the contemporary economic order. Given a broad meaning, competition is probably much more operative in setting the stage for price determination than is believed by either Robinson or Chamberlain. For one thing, with but few exceptions the profit rate as earned by industry on almost every hand seems to be neither excessive nor extremely variable from industry to industy or from firm to firm. For another, the largely

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[2]Thus, I am surprised and pleased to discover the traditional libertarian, Overton Taylor, coming to the defense of Schumpeter. See his *A History of Economic Thought* (New York: McGraw-Hill Book Company, 1960), pp. 464-466.

a priori theory of imperfect or monopolistic competition does not seem to get very close to reality. How it is possible to argue from the demand and supply curves imagined to hold under competition of the few that price is necessarily higher and output necessarily lower than it would be under competition of the many is hard to understand.

The argument rests primarily upon a supposed difference between the firm demand curve under competition, which is held to be perfectly elastic, and the firm demand curve under competition of the few, which is supposed to be negatively inclined. It is admissible that the demand elasticities may be as assumed. The magnitudes involved are in all likelihood far from comparable, however. If the two sets of data could be observed concomitantly under the same conditions the comparison might have some validity. But the world of many firms is not the world of few firms. Their settings are quite different; their structures and organization are far from similar.

Schumpeter has some observations about the behavior of the growth of demand which are pertinent to the argument:

> . . . It is necessary to point out that the rate of increase in output did not decrease from the nineties from which, I suppose, the prevalence of the largest-size concerns, at least in manufacturing industry, would have to be dated; that there is nothing in the behavior of the time series of total output to suggest a "break in trend"; and, most important of all, that the modern standard of life of the masses evolved during the period of relatively unfettered "big business." . . . . As soon as we go into details and inquire into the individual items in which progress was most conspicuous, the trail leads not to the doors of those firms that work under conditions of comparatively free competition but precisely to the doors of the large concerns—which, as in the case of agricultural machinery, also account for much of the progress in the competitive sector—and a shocking suspicion dawns upon us that big business may have had more to do with creating that standard of life than with keeping it down.[3]

Schumpeter's thesis is that capitalism is a form of relatively continuing change or evolution. Presumably the rise of the large firm is but a segment of this process. He says:

> The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates.[4]

New methods of production of old and new products, new products, and new ways of marketing new products are being developed almost continuously. To attempt, even in a cursory way, to establish the precise nature of the firm demand curve under such conditions seems almost foolhardy. Empirically, the data shift so abruptly from time to time as to obscure almost completely the shifts in the demand curves which appear to be a mixture of both stochastic and deterministic elements.

A list of the many new products that have been created since the close of World War II could hardly be repeated here; the products are legion. Already a number of them have been superseded by others.

Ever More Specialization

At the foundation of these developments lies specialization: specialization in research and development of new products, techniques, and methods; specialization in the organization of production and marketing; specialization in the skills of machines and workmen; and specialization in the means of communication and administration.

Specialization may occur in either commodity or activity. Modern business organization is moving especially in the latter direction, as it turns toward the production of a host of commodities rather than one or two. "Diversification" is the byword. Indeed, the firm which fails to diversify often finds itself suffering an intensity of competition that not even the small firm of early days of the private enterprise economy encountered. A modern business giant may produce steel, bridges, ships, paints, glass, and housing materials. A former shipping concern is turning to chemicals manufacture; and an airframe manufacturer, to submarines, space-ships, and electronic instruments. Indeed, diversification may range across the board of products. Industry is learning almost daily that a highly effective management may diffuse its abilities over a multitude of products more successfully than were it to specialize in one or two. Extreme commodity specialization may really be indicative of an inefficient management.

ACTIVITY SPECIALIZATION: KEY TO MODERN BUSINESS

Activity specialization is the essence of modern business administration. What the limits of such specialization are is not wholly clear. The size of the market may have much to do with the extent to which production and marketing can be specialized. Certain costs are entailed. They set the break-even point at such levels as may demand a very sizable output and sale and, therefore, large markets, sometimes international in scope. The limit then to specialization in this sense is a scale of operations which in turn is limited by the unit of production, its level and divisibility. And the larger the market the less restraining are these factors.

Here is the chief reason why only a few firms—frequently a handful or so—compete in modern-day industries. Even when the chief production department may be divisible into relatively small machine units—as in the textile-weaving industry—large firms are be-

[3] Joseph A. Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper & Brothers, 1950), pp. 81, 82.

[4] *Ibid.*, p. 83.

coming more and more the order of the day, for then extensive and intensive specialization of management activities is made possible. This combination of circumstances requires the large market and, given the modern technologies, it is only large enough to accommodate a handful of separate firms. The consequence, in turn, is large output—in Schumpeter's sense—as well as reduced prices. Thus, the cotton textile industry—historically, highly competitive in the traditional meaning of the word—is gradually going through management and production consolidations on a grand scale. A form of competition of the many is disappearing, to be replaced largely by a new form of "competition of the few," with competition coming horizontally and vertically from firms weaving cottons and firms weaving synthetics. In fact, some new giants are turning to the weaving of almost all fibers. The result is a forward march of activity specialization.

Activity Specialization Lends Itself to Constant Improvement

A shift towards activity specialization has its advantages, productively and managerially speaking. These grow out of the fact that there may be several ways of producing a commodity or groups of related commodities through the specialization of activities. Thus, the modern electromagnetic-mechanical devices of machine control and guidance may themselves be given several alternative arrangements, *and the optimization of output is not necessarily a single action involving a single decision but the choice among several combinations of production means.* For the many production processes thus developed in the modern business giant, activity specialization is more basic in nature than is commodity specialization and, therefore, lends itself much more readily than does commodity specialization to improvements in labor, machine, and management efficiencies.

The large firm with its changing management background and changing management specialization carries activity specialization far down into the activities involved in the production (and marketing) of a commodity. A commodity is made up of several or more economic components. These components are broken down into manufacturing activities. Similar or closely related activities are grouped together and machines are designed to carry them out with a precision that no man can achieve. In a word, activities are functionalized and each function calls for a definite operation amenable to mechanization and electromagnetic control.

Under these conditions both labor and management skills become so divided that the time of learning is reduced far below the traditional hand and quasi-mechanized operations. *Moreover, this functionalization of activities can be transmitted to any number of products, so that product specialization may be undesirable, even uneconomic.* Here is a very potent reason why there is widespread change in the organization of business activity. Traditional ways become obsolete, and the business firm occupies a place in the organization of economic activity far more unique than ever before.

MARKET'S ROLE REDUCED

The market's organizational role is notably minimized. The expanding firm seems to prefer to distribute a group or groups of commodities rather than enter the market with a single product. The traditional, formal market could and still does handle quite effectively the sale and purchase of a commodity which is highly standardized and widely produced; farm commodities may be cited. But it cannot cope with groups of commodities very effectively when some of these commodities are especially related. The modern firm can, however, concentrate into a relatively small organizational unit the widely diverse activities, the sale, transportation, and storage of a multitude of products. To be sure, a number of firms, such as General Motors, General Electric, Bendix Aviation, Westinghouse, Ford, and others, organize by a combination of commodity and activity specialization. Thus, General Motors has its several competing automobile divisions engaged in separate marketing activities. But the separation occurs at a high level of customer-company relationship, for several of the steps in the marketing of the final products have been effected long before the single commodity is put on the market. For example, much of market analysis is "centralized," i.e., it is made to apply across the board of the whole group of products; and, in turn, activities thereunder are specialized. Much of the transportation system operation has also been centralized and made applicable to common elements in the products; consider the handling of spare parts. Major policy making is likewise centralized. The effects of such specialization apply to the whole organization as well as to its components.

Organization of Specialists—Now Chiefly by Firms

As Adam Smith long ago developed, economic organization arises because of the need to bring about coordination of the specialists. Today, increasingly, the business firm effects coordination through its organizational nature and the operation of the organization. To be sure, coordination could be effected through the market—formally or informally conceived. It has long done so for a number of agricultural commodities and basic raw materials. But the coordination of specialized activities is best achieved through the economic unit called the firm. In fact, the market could easily break down under the burden that would be imposed upon it were it to handle the many specialists who are found in industry today. Hence, the firm becomes the primary

level of organization of economic activity in the modern private enterprise economy, whereas the relatively formal market is the secondary level of organization. Important vestiges of both the firm and market survive even in totalitarian societies for the same reasons as hold in the private enterprise economy. The general economic advantages of these forms of organization have become generally recognized.

The coordination of activities involves their direction, supervision, and control. These functions are administrative in nature and the activities falling thereunder are separated from "work" or "performance" activities. In modern society this is the first level of specialization and the source perhaps of its greatest economies. These administrative activities undergo further specialization within themselves, separately from top management. Special groups in the organization develop—not always fully delineable, but nontheless quite in evidence and called middle management. These groups are moreover formed into subgroups, each engaged upon certain major activities of management, sales, production, finance, and so on.[5] This organization of specialization by activities has effected a higher order of coordination than would have been achieved through a formal market. Indeed, had the market been the only possible way of coordination, this advanced specialization would in all likelihood have been impossible.

The large firm is thus not only able to specialize its production activities but also its marketing, finance, and other activities and through this specialization attain a significant saving of time and space. With its growing number of different products the large firm through its marketing function can canvass a large number of potential buyers in effectuating the exchange of its products more efficiently than can the formal market. In modern society the organization of general economic activity has been adapted particularly to this way of buying and selling. In contrast, the small firm would have to search out its market or else depend upon a formal market perhaps far less efficient.

This does not mean that the market system has been superseded. On the contrary, it acts in peripheral as well as direct ways to set the stage for the competition of even the large firm. The money and raw materials markets are instances of a high order of competition to which all firms are subjected. To be sure, so-called oligopsonies do exist; but the analysis afforded through the methods of monopolistic competition, while rigorous in one sense, fails to look at the entirety of the forces governing the behavior of the firm and its customers. It might even be suggested that this theoretical framework has become too microscopic, so that it fails to see the wood for the trees. To agree with Overton Taylor:

> . . . on the whole, I do not think the complete, real picture is by any means so black as it is often painted by those who conclude that no modern business economy is really at all like the (tolerably well, in the public interest) self-adjusting or self-regulating, competitive system of the Adam Smithian vision. It is foolish utopianism to expect any real system *not* to be full of more or less serious "flaws," and to condemn it wholly for being so; or to conclude at once that because it has these "flaws," it must and can be replaced by or transformed into some very different and much better system.[6]

SUMMARY

The enterprise economy is no longer composed almost entirely of many small firms. The atomistic economy of the eighteenth and nineteenth centuries is giving way to an economy of giant firms. These giants have come into being as the result of a production technology that is vastly superior to the old. Its efficient functioning demands large markets, and only a few firms can live in such an atmosphere. Modern management is also far removed from the owner-manager of the eighteenth and nineteenth centuries. It is highly professionalized. Its specialization runs to activities rather than to commodities so that a single firm may design, produce, and distribute a great number of products instead of one or two, as was formerly the case. Hence, the primary level of organization of the major elements of economic activity is no longer the market. It tends instead to play a secondary role. In manufacturing especially, the giant firm is the primary level of organization. It comes to depend upon modern economic-statistical methods of analysis to assess the demands for its products, upon newly fashioned but powerful communications techniques to coordinate the many specialists, and upon research and development rather than intuition to keep it abreast of a form of competition that has its roots in a virtually constant flow of new ideas about products and production. Under these conditions it is quite possible that prices of many of the products to the consumer are much lower than they would be under the competition of many sellers, even though these prices are determined under conditions wholly different from the setting of the competition of the many.

[5] Cf. William H. Newman, *Administrative Action: The Techniques of Organization and Management* (Englewood Cliffs: Prentice-Hall, Inc., 1951), pp. 125 ff.

[6] *Op. cit.*, p. 467.

Part II of Dr. Swanson's paper "A Closer Look at Innovation: the Changing Roles of the Entrepreneur and the Consumer" will appear in a subsequent issue of the Atlanta Economic Review.

William M. Brown
W. T. Tucker

the MARKETING CENTER

Vanishing Shelf Space

The most exciting marketing battle of the period rages daily in the supermarkets. Women pick up or ignore the new product on the shelf. Salesmen cajole and bargain for shelf position and a greater number of facings. The store manager carefully plots his prices and standing displays to expand a narrow profit margin. And the Nielson field worker tots up the successes, the failures and the "also-rans." A two-year old brand may have one third of a given market. A former sales leader may have fallen to fifth place in a few years. Central to the competition is the problem of vanishing shelf space.

For some time in the rapid evolution of the self-service food store, shelf space may have seemed infinitely expansible. As years passed and the number of items offered through supermarkets increased, new stores became larger and larger. And the largest stores were normally the most profitable. Kroger's found that it could increase its corporate profits by selling off the smaller stores and reducing the total number of stores while building new, large supermarkets to add to its chain. Other chains behaved similarly. But in the last few years increases in size have not been followed by increases in profitability. In fact, the housewife seems to have a clear preference for supermarkets that are reasonably compact and easy to shop in.

Some chains reacted to the increasing size development by simply crowding more merchandise into a given store. Display cases were set at the end of every island, standing displays were located wherever a few feet of floor space existed, and soft goods like stockings or washcloths or children's sun suits were hung above the islands. In some stores it became impossible for two baskets to pass in the cluttered aisle spaces, and the checkout counters became hidden behind additional selling racks that made cuing for checkout extremely difficult. In the twelve or thirteen years that followed the second world war the degree of concentration of product within a given space and the over-all size limitations of supermarkets were roughly determined. While there are no constant limitations on these aspects of supermarket operation, since different localities and different regions do not have the same demands, the trends toward cluttered stocking and larger stores has reversed in the past few years. Shelf space is physically limited.

At the same time, the number of products available for that shelf space knows no limit. Every narrow product line of fifteen years ago has expanded violently. The mere sugar coating of cereals increased the demand for shelf space for that item by at least sixty per cent. And there were many other additions to the cereal line. Household cleansers have expanded so rapidly that there now seems to be a full line of special cleansers for every type of surface in the house, And, of course, there is a special type of wax, polish, or protective coat available for each of those surfaces once it is cleaned.

But this should not be thought of as any particular kind of plot on the part of manufacturers or food processors. The housewife demonstrated a real desire for the variety of products offered.

In the mid-thirties the average grocery store carried a few hundred items; five thousand or more make up the stock of the average supermarket.[1] J. Weingarten of Houston typically handles about twenty thousand food and nonfood items.[2] While this upward trend continues, supermarket size seems to have reached its general limits. In 1949 an area of 12,000 square feet was

Note: The authors are on the faculty of the College of Business Administration, University of Texas.

1. M. M. Zimmerman, *The Super Market* (New York: McGraw-Hill, 1955), p. 207.
2. *Ibid.*, p. 160.

considered ideal for a supermarket, but in a few years the figure had increased to 20,000.[3] The countertrend is already apparent. The average new supermarket built in 1957 was 22,000 square feet. In 1959 this figure had dropped to 20,000, or almost ten per cent.[4]

Women were buying differently and buying different kinds of products. The shopping list all but disappeared as housewives could depend on the sight of merchandise to remind them what they needed or wanted. Some estimates state that 75 per cent of the items purchased in the supermarket are based on decisions made at the moment. And one apparently serious researcher has suggested that the shopper in a supermarket acts in a semi-hypnotic trance. Questionable as this finding may be, it is apparent that packaging and product newness have something to do with sales, that is, the new product that has a promise of utility and a dramatic package can probably be introduced more rapidly than ever before. Of course, the usual marketing techniques are involved, including heavy advertising, careful marketing research, and diverse and massive promotional efforts. These efforts can meet with spectacular success. And manufacturers who have not been prompt to accept them have frequently found themselves out of step with the consumer. Old Dutch Cleanser lost its market steadily from about 85 per cent to 15 per cent of sales in that product line. New Dutch Cleanser, equipped with a new package, new color, new chemical formula is bidding to get a good share of it back.

The result is that the strain on shelf space has become tremendous. Producers continually produce new products because they are profitable; retailers are unable to increase the size or contents of the store because it is not profitable.

In general, supermarkets today cannot accept new products without eliminating old ones or reducing the amount of shelf space given to old ones. This fact assumes great importance to the producer or food processor because his sales are clearly related to the amount of shelf space or other display space his products get and to the location of that space. All of the other ingredients that go into the successful marketing program become valueless unless the proper amount and kind of shelf space is provided.

Who Determines Shelf Space?

As shelf space becomes an increasingly scarce commodity in relationship to the demands placed upon it, the necessity to understand its apportionment assumes more importance. The manufacturer and the retailer, to say nothing of a number of brokers and wholesalers, depend upon an apportionment of shelf space that will allow them to show a profit. The housewife is, naturally, interested in some kind of apportionment that will help her to locate and purchase the products she wants.

The housewife establishes rather strong control over shelf space. The products she buys in quantity must be stocked in quantity. Those she makes only occasional purchases of or is willing to search out diligently need not take much shelf space. Bread must be given enough space to stock the rapid demands of a Friday afternoon throng, while ground black pepper's demand is lower, and its shelf space can be minimized. Retail management is sensitive to such obvious kinds of consumer requirements and accepts them in the rough ordering of shelf space, reducing that given to the slow sellers and increasing that given to the fast sellers in a reasonably ready response to consumer demand.

Beyond the point that consumer demand is obvious, the manager or owner of the supermarket has complete say over shelf space. He determines whether canned halves of cling peaches receive a facing one shelf deep and ten cans wide, or half that much, or more. The size he selects will be influenced by a number of variables, as will be the exact location. Primary among these variables is his estimate of consumer demand. This should be carefully distinguished from consumer demand itself, because estimates of it include a rather sizable amount of error. Also complicating the problem is the fact that consumer demand fluctuates with shelf space. This makes the situation vaguely analogous to planning a pack train that carries its own food. The number of mules required depends on the amount to be carried, but the amount to be carried depends in part upon the number of mules to be fed.

The retail manager is interested in demand largely because satisfying that demand is the principal road to profits. Gross sales figures are easy to acquire, and either local managers or central chain operations tend to judge stores on the basis of gross sales. Margins are not ignored, however. The product that can carry a high markup and sell is obviously as important a contributor to profits as the product that sells more rapidly but requires a lower markup. It is often said that there are essentially two kinds of products carried by the food store. One of these is the national brand, heavily advertised and well known to the consumer. In general, its price is reasonably high, consumer demand is good, but the retail margin is low. The other type of product is the private brand, unadvertised in national media and given little direct selling effort. Its selling price is generally lower than that of the competing national brand, but its markup is higher. Chain store private brands deliver not only the profit at the retail level but the producer profit as well when the chain does its own processing. In time, a private brand like Iona, Ann Page, or Natur Tender may develop the same kind of

3. T. N. Beckman, H. H. Maynard, and W. R. Davidson, *Principles of Marketing* (6th ed.; New York: Ronald Press, 1957), p. 224.
4. *Facts About Super Markets*, 7th annual report, Super Market Institute, Chicago, 1960, p. 6.

strong consumer franchise that characterizes the national brands.

This dichotomy is, however, a serious oversimplification. Some brands have mixed characteristics, some national brands receive less total advertising than certain private ones. The difference in margins can be either great or small and on occasions may favor the national brand. The supermarket manager is never in a situation where *he* can presume that he is dealing with merely two types of products. In all probability he uses estimated consumer demand as his primary basis for determining shelf space and modifies his decisions where margins are either extremely high or extremely low. It should be noted, however, that the range from extremely high to extremely low in food store markups is a narrow one. If one considers net margins rather than gross margins it is probably even narrower and virtually impossible to figure for many items.

While it may seem that private brands, especially those of chain stores, get special consideration in the determination of shelf space, it would be a mistake to accept as fact that private brands are always given more space than their contribution to profits warrants. There is the strong possibility that chain store executives can be more coldly analytical about their own brands than their store managers can be about national brands.

Other variables that may influence the decision on shelf space for peaches include the number of brands stocked, the wholesale price, and processor activities of all sorts including those of peach processors *and* those of other processors and manufacturers. A special advertising program by one of the peach processors, a particularly persuasive salesman, a special purchase offer may lead to an increase in the space given the product. And the results will probably be increased sales of canned peaches, for the great majority of products undoubtedly sell more with more shelf space, just as most products react to an increased number of salesmen or heavier advertising.

The efforts of various producers are continually directed toward getting more shelf space or better shelf space, since all space is not equally available to the consumer. A remarkable variety of methods have been developed to get more and better space by the processor, the most obvious of which is the use of personal persuasion. Most so-called salesmen who sell to food retailers are actually promotion men who work hard to develop shelf space. To them shelf space and sales to the store are intimately related; greater sales to the retailer simply imply more shelf space. And often these "salesmen" are taught to direct the bulk of their effort toward developing the best display possibilities rather than working for larger orders directly. Their methods may include the promise of a heavy national or regional advertising campaign which would justify larger stocks. They may be based in part on the provision of special display racks like those that some processors of baby foods and soups supply. The heavier display, such as the standing display of a single product, may be related to a store-wide promotion featuring a clown and toy balloons and store decorations, or simply an individual passing out samples of the product. Shelf locations may be changed on the basis of cooperative advertising funds provided by the processor or a special price reduction if a certain amount of the product is purchased. In some cases commercial bribery is used, with the cash payment to a store manager showing up as "entertainment" on the salesman's expense account. Often the fact that a processor supplies other wanted merchandise is used as leverage to promote favorable space for the entire line.

Retail management is caught between the obvious demands of the consumer and the continual pressures of processors, either directly or through middlemen. To the extent that he understands the former he can resist the latter. To the extent that he cannot predict consumer behavior, he is at the mercy of the many diverse pressures that can be brought to bear on him.

The Interests of Retailers, Processors, and Consumers

It would be a simple matter to overemphasize the lack of common interests among retailers, processors, and housewives. The simple truth is that their interests run parallel. The processor is intelligent enough not to push strongly a product that people do not want. In fact, he is normally shrewd enough not to produce such a product. His interest is in locating and manufacturing something that housewives want, and he is quite adept at doing so. The retailer wants to carry those same products, and, simply by definition, the housewife is interested in them.

From a practical standpoint, however, this common interest is not all that each of the parties has. The processor is interested in the greatest possible sales and, therefore, the greatest possible shelf space for his own products. With considerable confidence in his own product line, it is not difficult for him to presume that it is in the consumer's interest and the retailer's interest as well, even though this may not be the case.

The retailer is interested in getting the greatest profit out of his store or stores. Like the processor, he is involved in a low markup business. The efficiency of both processing and retailing in the food industry is remarkable. Actually profits as a per cent of sales are extremely low in comparison with almost any other type of American business. The effect of this low markup is to make marginal sales of major importance. The sole distinction in the interests of retailer and processor is what each wishes to maximize. The retailer wants to maximize the total sales of the store; the processor merely wants to maximize the sale of his line of products. (It

might be pointed out that processors' interests would change rapidly should retail food stores be forced out of business in any large numbers by mis-stocking of products.)

The consumer's interests run almost exactly parallel to those of the retailer, at least in so far as shelf space is concerned. The housewife wants to purchase the maximum number of desired items in a single store, this within the limits of shopping convenience. Obviously, this desire is almost exactly the counterpart of the retailer's desire to maximize the sales in his store.

The Relationship Between Shelf Space and Sales

There is reason to believe that a more complete knowledge of the relationship between shelf space and sales would have valuable consequences for all three parties involved in the current battle over shelf space.[5] With more accurate knowledge the processor could spend his efforts attempting to capture only that shelf space that was of real value to him. (At present one of the problems is that the processor does not really know how much he can offer for shelf space in terms of discounts, promotional aids, or commercial bribery.) The retailer, with a better understanding of the effects of varying amounts of shelf space on different categories of products, could come considerably closer to maximizing the return on his operation. The housewife could expect greater knowledge about this variable to lead ultimately to more convenient shopping and possibly to lower prices.

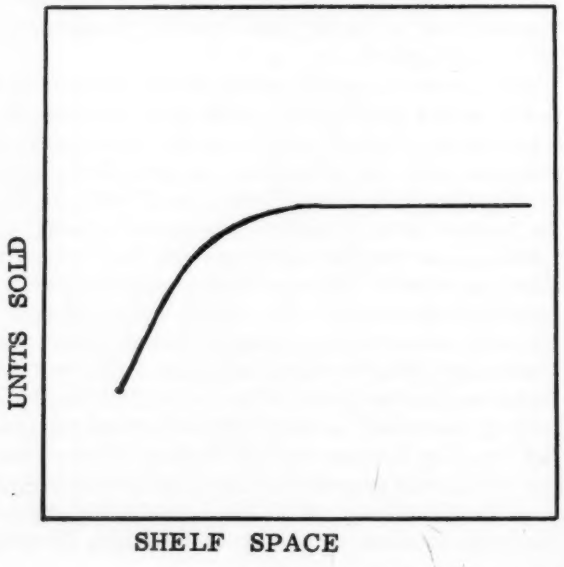
At present the relationship between shelf space and sales is imperfectly understood, although theory of other promotional methods strongly suggests that certain relationships will hold. If one were to hypothesize on the basis of comparable promotional tools, these would probably be his expectations:

1. All products will sell in greater quantity if given greater shelf space;
2. The amount of sales of a product will not be directly proportionate to the amount of shelf space occupied, but will vary from it in predictable ways;
3. All products will not respond in the same degree to additional shelf space.

The first of these hypotheses is generally accepted from the standpoint of theory and by the trade. The only qualification necessary is that a product that people really don't want will probably not respond to greater shelf space any more than it will respond to any promotional technique.

The second hypothesis is related to all marginal theory. The basic concept is that a larger display will receive the attention of a greater number of women and will, therefore, be purchased by more of them. It is obvious, however, that there must be some limit to this process. At some point, every woman who enters a store will be given a clear opportunity to consider the purchase of a given item, and further increases in shelf space will have less and less effect. Imagine for instance a meat counter on which one or two packages of chicken thighs are placed. Some women will see the packages, recognize that they would make a desirable meal and purchase them. On the other hand, imagine a meat counter half filled with chicken thighs. Almost every woman in the store would see them and consider them as a possibility for a meal. Undoubtedly many more packages would sell. But what would happen if the entire counter were devoted to chicken thighs and the customer had to ring to get any other type of meat. Aside from the obvious strong objections the store manager would get, it is hard to imagine that his sales would increase at anything like the rate that they increased with the first jump in space devoted to chicken thighs. More important than one-day results, however, are longer term results. A large display of chicken might increase sales a good deal over the short period, but it is highly doubtful that large displays would increase sales heavily over a long period. Much of the modern supermarket is stocked on a relatively long-term basis, with the space given to a particular product and particular brands of that product remaining much the same except for special promotions and displays. Figure 1 suggests the nature of this relationship between shelf space and sales.

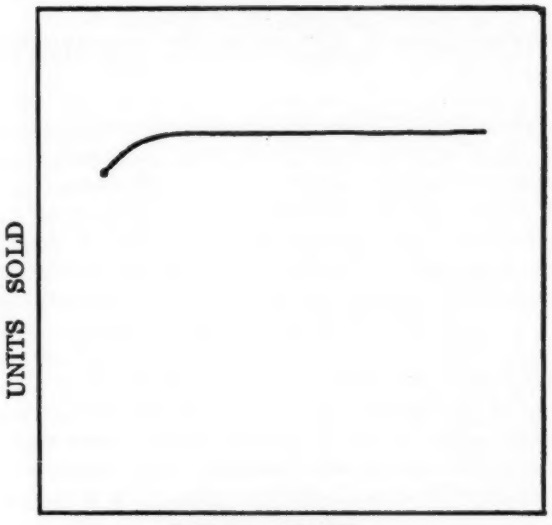
Figure 1
Relationship Between Supermarket Shelf-Space and Sales



5. The only reported experiment on this relation is inconclusive and limited: D. H. Harris, "The Effect of Display Width in Merchandising Soap," *Journal of Applied Psychology*, August, 1958, pp. 283-284.

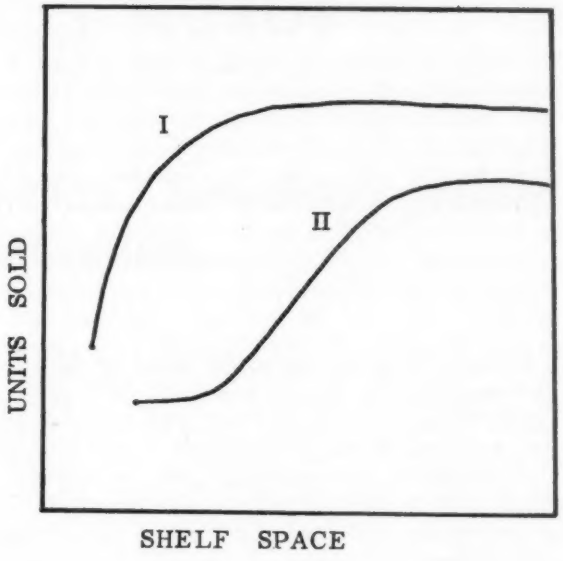
The third hypothesis states that there may be considerable difference in the shape of the curve suggested in Figure 1 for different products. Certain products would probably react more strongly to additional shelf space than others. Probably staple products like flour, salt, spices, and specialized products such as Angustora Bitters and A-1 Steak Sauce would show little reaction to changes in shelf space since most consumers will look hard for the products if they have no supply at home, and most others cannot be enticed to buy. Products of this sort would probably have a lack of responsiveness to shelf-space allocations as suggested in Figure 2.

Figure 2
Relationship Between
Supermarket Shelf-Space and Sales
Unresponsive Products



Other product lines, perhaps most general-use products such as breakfast foods, canned fruits and vegetables, baked beans, and others would be expected to have curves showing that the effect of shelf space is fairly strong for minimum amounts of space, but that the point of diminishing return occurs fairly early. Figure 3 suggests the possible nature of the relationship as that of Type I products. Also, Figure 3 indicates a probable second type of responsive product. This kind of product could be thought of as one that large numbers of users purchase on occasion, but that does not fit into a regular buying pattern for most purchasers. Sardines or canned nuts might belong to this category. Unlooked for by most housewives, they might respond slowly to shelf space increases until the display was large enough to force its attention on the shopper. At that point their sales curve might rise steeply to reach its point of diminishing returns at fairly large amounts (perhaps impractically large amounts) of shelf space. These are referred to as Type II products.

Figure 3
Relationship Between
Supermarket Shelf-Space and Sales
Responsive Products



Quite obviously, the concepts expressed here are implicitly understood by retailers and processors in the food industry. Already they are used as controls in a general sort of way. However, since the food industry has been among the most analytical and experimental in its approach to marketing costs and marketing analysis, it would be expected that informal use of such concepts would lead to experiments and anlysis for even closer control. Steps in that direction would not disturb normal store operation, and the techniques for such work are well known to the managerial levels of the larger chain operations.

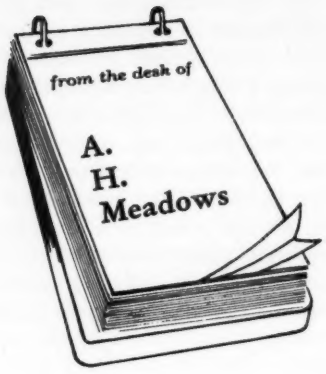
The contribution of shelf space to sales may be the developing control area in food marketing.

The Possibility of Price Competition

Wherever a resource is scarce and demand for it is strong, some consideration must be given to the possibility of allocating the resource through price competition. In the case of shelf space this could be accomplished by a rental system. A producer could then rent the amount of space that he thought to be appropriate for his particular product or line of products. Knowing

(Continued on page 16)

THE MANAGEMENT FORUM



Making Employees Capitalists insures the future of the American Capitalistic System

Colonel Drake did not realize when he drilled his historic 69½ foot discovery well by foot power in Pennsylvania over 100 years ago that it would mark the beginning of one of America's largest and most vital industries, now providing jobs for millions of people with salaries and wages amounting to billions of dollars annually. During this period vast economic changes have taken place in our evolving industrial civilization. Standards of efficiency have constantly risen, the tempo of industrial production has steadfastly increased. Modern technology has enhanced our standard of living and changed our economy to a money economy. These elements in our dynamic industrial world have had their greatest impact on the older workers.

The quest for security is as ancient as the human race. Over the years man has striven continuously for security in case of health failure or retirement because of old age. Recognizing this need, many progressive American companies have adopted plans to provide security for their workers. Private pension plans, health and welfare benefits, stock investment and stock bonus plans are provided by many companies. Perhaps 50 per cent of the total work force today benefits from such plans. But that isn't enough. The future of our capitalistic system depends upon what kind of capitalists we make of all our employees, with due regard to the interest of shareholders.

In a little over four decades the basic work week in the petroleum industry has dropped from 84 hours to 40 hours. Buying habits, family size, and income taxes that affect what we can do with our pay checks are constantly changing. Once pay was a simple matter concerning two persons, the employer and employee. As often as not, pay negotiations consisted of a simple "take it or leave it." That era is far behind us. Today, the pay check is many things—the subject of countless laws, a tax source, purchasing power, income to some, cost to others.

Employee compensation has also become more than a regular pay check. It has become deeply intertwined in many employee benefit plans to help meet the worker's need for security. The company that provides employee benefits is no longer the pioneer, it is merely following intelligently the modern trend. Benefit plans are used to compensate executive and rank-and-file employees, to tie them to the company, to stimulate and reward their best efforts, and to give them as much take-home value and future security as possible with a given amount of payroll cost.

THE STOCKHOLDER'S VIEWPOINT

A stockholder wants high and sustained profit. Benefit plans' being a part of the employee's compensation certainly affects profits. It would seem that employee and stockholder interests must be in conflict. Fortunately, this need not be so, because efficiency and productivity are just as important as pay rates. High pay rates coupled with high productivity can mean low labor costs. The stockholder's interest then is not "how much is paid?" but "do we get what we paid for?" In many cases employees are also shareholders and, as such, work for each other.

Note: Mr. Meadows is chairman, General American Oil Company of Texas.

The Management Forum series is arranged by Dr. James E. Chapman, professor of management and chairman of the Department of Management, School of Business Administration of Georgia State College of Business Administration.

A sound benefit program can do much to increase the company's earning power and enhance the value of its stock, and it is an indication of a progressive and efficient management. As owners of the company, the stockholders have a big stake in its benefit plans and a genuine interest in their operation. The annual report is an ideal vehicle for bringing this information to them.

WHERE TO BEGIN

Normally the aim of every well-managed company is to offer its employees a well-rounded benefit program, but in this day of rapid growth and expansion the problem frequently arises, "where shall we begin?" or "what type of plan do we need?" A pension plan might be thought of as a logical choice for a beginning that sooner or later every employee will need. Yet this is certainly a benefit in which younger employees may not be too interested because the benefits are available too far in the future.

HEALTH INSURANCE

This benefit is essential to a well-rounded company plan and should be included as soon as possible. It is our opinion, however, that hospitalization and medical cost should be installed first of all. Benefits should be available to the employee today to meet the high cost of hospital, surgical, and medical care in the event of injury or sickness. As a good example of this kind of protection, it seems appropriate here to discuss our company's medical plan, which has grown through the years. Our plan was inaugurated about twenty-five years ago by first providing benefits for the average hospitalization or surgery case. Later we added a major medical plan which provided additional benefits to help pay the costs of the more serious and prolonged type of injury or sickness. This protection against financial hardship caused by a lingering disability of an employee or his dependents helps give him peace of mind, which is reflected in his attitude toward his job.

Once this protection has been included, other benefit plans might be established in the following order: group life insurance, a pension plan, and then, if at all possible, the company should consider a thrift or profit-sharing plan for company stock acquisition.

GROUP LIFE INSURANCE

Group life insurance is the most widely used method in industry today for providing death benefits. Nearly all plans provide benefits based on the individual's annual earnings. The General American group insurance plan, for example, uses both earnings and length of service as a formula for determining the amount of benefit. During the first five years' service employees are entitled to insurance equalling one year's salary, two times salary during the second five years of service, and three years' salary for employees with service over ten years. Beginning at retirement, life insurance is reduced by annual reductions spread over three years.

PENSION PLAN

Every employer, in setting up a pension plan, is concerned with two important questions: First, what is best for the company and, secondly, what will it cost? Since the first question affects the second, each employer must decide what to do in view of his own experience, individual requirements, and his own social and business philosophy.

A pension plan is simply a method by which the actuarially-determined cost of the employee's retirement benefit is spread over his active working career. Subsequently, the funds thus created are distributed during the period when the employee can no longer be carried on the payroll because of old age or disability. The funds set aside each year are customarily invested to earn interest. The interest received on the funds so invested will, when combined, usually fund the pension at retirement age. The expected yield on the investments of the plan thus materially affects the cost of the program, and this interest income will be taken into consideration by the actuary in determining the amounts to be contributed to the plan from time to time.

Here at General American, for example, the Retirement Plan erected the nine-story office building about five miles north of the downtown business district of Dallas, known as the "Meadows Building." This building, formally opened in December, 1955, has been completely occupied since that time by General American and other tenants. The erection of this building has provided a sound method of investing retirement funds yielding gratifying returns, and it is expected to play a vital part in the funding of the Company's Pension Plan.

The retirement age at General American is 65. Earlier retirement is permissible from age 55 and 20 years' service, or an employee may retire at any age after 30 years' service. A person may retire early at any time and receive an actuarially-discounted pension based on his age at retirement, or he may elect to retire and wait until he is age 65 so he will receive his full pension without discount. Retirement benefits are based on length of service and annual average pay received during the five years preceding retirement.

EMPLOYEES BECOME SHAREHOLDERS

After establishment of an adequate pension plan, some type of profit-sharing or stock bonus plan might be the next step in a well-planned benefit program. The way the plan is set up is important. The oil industry pioneered many of the successful savings, stock purchase, and profit-sharing plans in use today. Many are contributory with the employer's contribution, based on the amount saved and contributed by the employee. Some plans emphasize the accumulation of savings for

retirement or other purposes. Others provide for periodic distributions. Nearly all of the oil industry's plans provide for investment of the company's contribution in company stock, thus making the employee a stockholder-owner in his company.

Again, using our company as an example, we originally created an employees' savings and stock purchase plan, under which an employee contributed from one per cent to ten per cent of his pay, which would be matched by the company. All contributions were invested in company stock. Due to inability of some of the employees to set aside part of their earnings, the plan was amended to eliminate employee contributions. Another reason for the amendment was that the basic savings purpose of the plan could be defeated if the employees sold out either during a temporary market setback or during a high market period. The amended plan provides that the company contribute an amount equal to 10 per cent of each employee's salary to the plan for investment in common stock of the company. This change made it possible for the plan to conform to our thinking back of the original plan—to enable all employees to become shareholders, and, more important, to participate in the company's growth over the years. Through this plan it is possible for the average employee to have an estate of between $50,000 or $100,000. Thus, when a company has helped an employee to become a small capitalist, such employee does not find it necessary to seek his fortune elsewhere in spare time or otherwise, and he can give company affairs all of his constructive thoughts.

Withdrawals are permitted after five years' participation, retirement, or death, and partial amounts may be withdrawn after three years. Dividends are credited to each employee's account and are tax-exempt until withdrawn. Few employees withdraw their account except as a last resort, since nearly all of our people realize they are creating an estate for tomorrow that would be virtually impossible to build in any other way.

In developing a program for employee benefits no particular pattern is right for all or even a majority of companies. Shaping the benefit package for a particular company depends on many factors, including type of industry, its practices, and the profit pattern of the company with its growth possibilities. Finally, the program must be sound. It must be molded to serve the purpose and requirements of all the employees of the company as an institution, and of its shareholder-owner. In doing all these things and more, the American capitalistic system is proving its superiority over all other philosophies. We hope the ideas expresed herein will soon be adopted by all employers and will continue to expand until every person in America can be in truth and in fact *a Capitalist.*

VANISHING SHELF SPACE

(Continued from page 13)

exactly what shelf space costs, he could be expected to become a proficient purchaser in a relatively brief period of time. The resulting situation, according to many economists, should be one that balances the interests of consumer, producer, and marketing institutions.

It might be argued that the current trend toward payola and commercial bribery is merely evidence that price competition is the natural allocative process in a commercial civilization like ours. Certainly competition for shelf space has taken in many aspects of price competition. Discounts to retailers can be calculated as easily as direct payments in rent. And department stores, discount houses, and other dealers in shopping goods have made considerable progress with leasing arrangements. Supermarkets themselves often have a leased produce, meat, or bakery department.

Several points seem to militate against the solution of the vanishing shelf space problem through leasing and direct price competition. The first of these lies in the relative efficiency of the supermarket. A leasing system would seem to require the keeping of records and the carrying out of lease negotiations without eliminating any current activity except that of the missionary salesman for the new product. Some kind of control system would have to be developed that would insure that space leased was actually delivered. It is always difficult to determine costs for a new way of doing business unless activities have been planned in detail. But to the casual observer there seems to be no strong possibility of decreased cost such as often attends the leasing of an entire department to an experienced manager.

Second, leasing would largely eliminate the merchandising function of the supermarket owner or manager. Yet it is this function that is obviously one of the most demanding managerial problems in food retailing, and it is this function that is the primary talent of present owners and managers. Leasing would seem to be the second major area in which the supermarket manager could be thought to be a true specialist.

Lastly, with the tremendous number of independent items, many leases would have to be made for very small units of space. And, with the relatively large numbers of different store ownerships, an individual processor would have a major job overseeing a multitude of leases. If there is a possible solution to the allocation of shelf space through leasing arrangements it probably lies in standard lease arrangements between large chains and multi-product producers. And, whatever problems arrangements of this sort might solve,

(Concluded on page 23)

Georgia Counties: Personal Income and Selected State* Tax Ratios

(Compiled by John R. O'Toole)

Rank by Population	County	% of total personal income	% of total* property tax paid	% of total income tax paid	% of total sales tax paid	% of total state* taxes paid
1	Fulton-Dekalb	29.199	45.063	45.666	31.433	29.80
3	Chatham	5.624	4.593	6.104	7.403	5.95
4	Muscogee	4.726	3.764	5.187	4.186	3.72
5	Bibb	3.876	3.672	5.159	4.186	3.96
6	Richmond	4.088	6.311	3.399	3.414	3.24
7	Cobb	3.306	1.718	2.358	2.332	2.54
8	Dougherty	1.783	1.746	1.473	2.106	1.97
9	Floyd	1.859	1.463	1.826	1.783	1.71
10	Hall	1.167	.956	1.313	1.507	1.45
11	Lowndes	1.271	1.084	.904	1.258	1.19
12	Troup	1.210	1.020	1.090	1.222	1.09
13	Clayton	.953	.364	.407	.470	.70
14	Clarke	1.097	.979	1.249	1.363	1.24
15	Walker	1.098	.397	.765	.793	.84
16	Gwinnett	.900	.451	.621	.803	.84
17	Whitfield	.988	.686	1.377	1.215	1.21
18	Glynn	1.066	1.079	1.142	1.241	1.10
19	Houston	.977	.282	.400	.667	.67
20	Carroll	.871	.427	.487	.750	.78
21	Spalding	.904	.951	.739	.896	.90
22	Thomas	.859	.696	.658	.794	.81
23	Ware	.702	.629	.598	.896	.89
24	Baldwin	.518	.363	.387	.428	.48
25	Colquitt	.839	.603	.585	.858	.79
26	Laurens	.602	.707	.285	.607	.68
27	Coweta	.719	.747	.657	.651	.76
28	Bartow	.655	.352	.437	.540	.69
29	Polk	.680	.547	.363	.547	.55
30	Decatur	.552	.357	.236	.498	.53
31	Sumter	.466	.401	.295	.461	.52
32	Bulloch	.437	.342	.225	.484	.57
33	Upson	.601	.438	.957	.640	.61
34	Tift	.500	.394	.282	.612	.56
35	Cherokee	.518	.325	.360	.468	.50
36	Coffee	.382	.359	.223	.478	.47
37	Catoosa	.370	.096	.134	.254	.30
38	Newton	.468	.303	.204	.375	.39
39	Burke	.327	.277	.119	.262	.34
40	Walton	.413	.302	.301	.419	.42
41	Chattooga	.484	.240	.200	.335	.39
42	Meriwether	.354	.333	.129	.292	.33
43	Mitchell	.364	.282	.177	.372	.41
44	Gordon	.409	.235	.292	.361	.42
45	Washington	.298	.178	.166	.320	.34
46	Jackson	.391	.215	.225	.425	.41
47	Stephens	.452	.336	.277	.490	.41
48	Habersham	.371	.198	.204	.441	.43
49	Grady	.336	.242	.152	.369	.35
50	Wayne	.334	.252	.171	.594	.50
51	Elbert	.329	.276	.227	.354	.39
52	Emanuel	.264	.340	.128	.360	.42
53	Crisp	.365	.294	.274	.502	.46
54	Henry	.354	.186	.218	.220	.30

Rank by Population	County	% of total personal income	% of total* property tax paid	% of total income tax paid	% of total sales tax paid	% of total state* taxes paid
55	Jefferson	.273	.201	.173	.291	.33
56	Toombs	.323	.255	.241	.444	.47
57	Douglas	.352	.106	.119	.251	.28
58	Worth	.287	.168	.080	.216	.29
59	Dodge	.278	.212	.178	.250	.32
60	Tattnall	.209	.137	.054	.237	.29
61	Brooks	.276	.244	.081	.227	.28
62	Hart	.252	.100	.163	.229	.29
63	Screven	.223	.168	.081	.254	.31
64	Haralson	.381	.234	.399	.284	.33
65	Liberty	.201	.080	.084	.219	.26
66	Barrow	.330	.178	.295	.334	.33
67	Peach	.281	.184	.359	.290	.34
68	Ben Hill	.258	.175	.152	.337	.33
69	Fannin	.141	.111	.064	.223	.22
70	Columbia	.220	.093	.063	.104	.17
71	Franklin	.245	.096	.086	.246	.28
72	Appling	.177	.129	.067	.232	.26
73	Macon	.215	.271	.095	.189	.23
74	Early	.219	.196	.083	.202	.25
75	Paulding	.251	.084	.079	.164	.21
76	Chattahoochee	.767	.009	.014	.039	.15
77	Terrell	.216	.188	.130	.224	.25
78	McDuffie	.270	.225	.206	.327	.36
79	Forsyth	.237	.123	.076	.230	.23
80	Berrien	.211	.156	.074	.249	.30
81	Cook	.206	.181	.121	.223	.27
82	Telfair	.215	.168	.105	.234	.28
83	Dooly	.212	.180	.058	.149	.24
84	Madison	.200	.053	.050	.085	.15
85	Greene	.196	.213	.098	.181	.18
86	Harris	.213	.090	.114	.136	.19
87	Randolph	.206	.133	.130	.186	.22
88	Wilkes	.187	.162	.073	.206	.24
89	Rockdale	.212	.105	.075	.171	.18
90	Monroe	.193	.175	.176	.148	.21
91	Murray	.210	.069	.060	.134	.22
92	Morgan	.225	.177	.069	.143	.19
93	Lamar	.197	.095	.129	.205	.23
94	Effingham	.160	.083	.047	.089	.14
95	Hancock	.137	.110	.504	.117	.14
96	Camden	.228	.167	.126	.327	.30
97	Pierce	.203	.148	.044	.171	.19
98	Bleckley	.178	.115	.060	.154	.20
99	Wilkinson	.185	.111	.068	.114	.15
100	Irwin	.153	.109	.065	.167	.21
101	Jenkins	.150	.109	.074	.171	.19
102	Butts	.171	.098	.088	.165	.18
103	Gilmer	.131	.077	.030	.151	.17
104	Jeff Davis	.152	.088	.053	.146	.17
105	Pickens	.188	.085	.143	.211	.19
106	Dade	.120	.033	.044	.109	.15
107	Jones	.115	.082	.035	.091	.13
108	Turner	.141	.123	.047	.175	.19
109	Bacon	.141	.094	.035	.217	.22
110	Taylor	.149	.082	.069	.145	.16
111	Pulaski	.169	.146	.091	.189	.22
112	Fayette	.146	.059	.079	.137	.15

Rank by Population	County	% of total personal income	% of total* property tax paid	% of total income tax paid	% of total sales tax paid	% of total state* taxes paid
113	Johnson	.157	.182	.021	.101	.14
114	Twiggs	.158	.078	.044	.068	.10
115	Oglethorpe	.118	.085	.040	.062	.10
116	Wilcox	.138	.106	.021	.086	.15
117	Putnam	.154	.119	.066	.131	.16
118	Rabun	.108	.093	.029	.163	.19
119	Stewart	.122	.102	.082	.109	.14
120	Warren	.127	.114	.059	.094	.12
121	Calhoun	.131	.132	.045	.113	.14
122	Lumpkin	.091	.065	.135	.114	.12
123	Pike	.149	.072	.025	.052	.08
124	Talbot	.095	.077	.044	.068	.10
125	Evans	.111	.074	.087	.212	.23
126	White	.105	.051	.028	.121	.12
127	Miller	.124	.102	.084	.100	.15
128	Seminole	.145	.093	.043	.180	.18
129	Candler	.114	.084	.044	.150	.16
130	Clinch	.131	.107	.091	.109	.16
131	Union	.060	.035	.008	.082	.09
132	Banks	.106	.033	.009	.025	.06
133	McIntosh	.100	.072	.038	.087	.13
134	Oconee	.121	.039	.023	.045	.08
135	Montgomery	.090	.060	.030	.061	.09
136	Bryan	.102	.053	.034	.097	.15
137	Lee	.093	.097	.022	.040	.08
138	Atkinson	.085	.039	.017	.067	.11
139	Jasper	.123	.122	.085	.092	.10
140	Lincoln	.084	.065	.024	.080	.09
141	Brantley	.103	.067	.032	.091	.14
142	Treutlen	.082	.060	.045	.074	.09
143	Crawford	.087	.066	.029	.076	.12
144	Marion	.088	.068	.026	.058	.09
145	Wheeler	.084	.065	.012	.045	.08
146	Heard	.103	.062	.025	.050	.08
147	Charlton	.083	.117	.085	.160	.25
148	Lanier	.084	.042	.049	.068	.09
149	Clay	.065	.051	.011	.050	.07
150	Baker	.102	.066	.012	.023	.06
151	Towns	.062	.025	.010	.056	.07
152	Long	.053	.041	.018	.058	.09
153	Dawson	.056	.032	.038	.062	.06
154	Taliaferro	.044	.050	.004	.032	.05
155	Schley	.052	.053	.017	.041	.06
156	Webster	.046	.021	.012	.021	.04
157	Glascock	.045	.025	.007	.028	.04
158	Quitman	.030	.017	.007	.016	.03
159	Echols	.031	.024	.007	.010	.02

*The taxes treated in this table are those going to the state; not included, for example, are property tax revenues retained by county and city governments.

Sources of data: (1) Population: *United States Census of Population 1960*, U. S. Department of Commerce, Bureau of the Census. (2) Per cent of total personal income: *Analysis of Georgia Personal Income Payments by Counties*, John L. Fulmer, Project Director, Industrial Development Branch, Engineering Experiment Station, Georgia Institute of Technology, 1959. (3) Per cent of total property tax: *Statistical Report of the Department of Revenue of the State of Georgia*, compiled biennially, July 1, 1956-June 30, 1957; July 1, 1957-June 30, 1958. (4) Per cent of total income tax; same as (3). (5) Per cent of total three per cent sales tax: same as (3). (6) Per cent of total state taxes paid: *Statistical Report of the Department of Revenue of the State of Georgia*, July 1, 1958-June 30, 1959; July 1, 1959-June 30, 1960.

SOUTHEASTERN CORNER

INDUSTRIAL DEVELOPMENT *as seen by* SOUTHEASTERN BANKERS

Bankers, as citizens and because of the nature of their business, hold a position of responsibility in the over-all economy and of leadership in industrial development. Three southern bankers give their views on industrial development.[1]

MR. C. M. VANSTORY, JR.,[2] (North Carolina) emphasizes the need for a good industrial climate. Quoting former Governor Luther H. Hodges, now Secretary of Commerce, he states:

> " . . . industrialization will come only when a state has a good industrial climate and puts its best foot forward to the world. These are possible only when a state provides good schools and other governmental services. They are possible only when both labor and management are respected. They are possible only when major attention is paid to research for the future. . . ."

Again, quoting Mr. Hargrove Bowles, Jr., Director of the Department of Conservation and Development:

> "North Carolina will continue to be friendly and fair in its attitude toward industry. The state has much to offer industry in a fair and equitable tax system, adaptable and productive labor willing to do a day's work for a day's pay, a 'Good Neighbor' attitude toward industry in general, and citizens who believe in living and letting others live."

Mr. Vanstory further states:

> I feel sure that other states besides North Carolina must have found from their experience that a good industrial climate is an important factor, and that they would emphasize the same elements that we do in making this good climate possible.
>
> We have also come to the conviction that research and education are of large importance as regards our future development. As evidence of this, the state has established in recent years the Research Triangle, which is situated midway between three major universities in our state. Moreover, North Carolina has a growing network of thirteen industrial education centers (with five more in advanced planning stages) to train or re-train skilled

[1] Quotations are from the SASI NEWSLETTER, June 1961, published by the Southern Association of Science and Industry, Inc.

[2] Mr. Vanstory is chairman of the board, North Carolina National Bank, Charlotte, N. C.; and president of the North Carolina Bankers Association.

workers and technicians for industry. Enrollment in established centers will reach 19,000 by the end of the 1960-61 school year, and an enrollment of 24,000 is expected by 1963. I understand that other states throughout the South are making long strides in the development of their own industrial education centers, and it seems to me this is a fundamentally wise move.

Equally basic in its wisdom is the decision of southern bankers to play an increasingly important role in the location of new industry within their respective areas. Our own bank pioneered in this activity in North Carolina, and we have found it most productive, not only for incoming industries but also for the economy of the state as a whole.

★ ★ ★

MR. JAMES B. THURSTON[3] (Tennessee) comments specifically on the role of banks in industrial development:

Historically, banks have provided leadership in stabilizing and stimulating the over-all economy of the areas they serve. One of the outstanding contributions by southern banks has been in the field of agriculture. This industry still needs our constant attention. Changes in methods of farming and types of financing require fresh approaches on the part of bankers. These changes are somewhat shocking when we realize that one-half million farm workers have been displaced in the last five years. To emphasize further the change in agriculture, only one tenant farmer exists today where there were six in 1930.

This does not mean that our agricultural economy will not continue to be important, but it does point up the need for additional employment opportunities for young people and others in our area.

First, we should not overlook the community responsibility to maintain a healthy climate for the industry we now have. This includes maintaining an intelligent posture on the part of the community in the area of taxes, labor climate, and community relations toward industry.

Secondly, where additional industry is needed or desirable, the banker's responsibility should be established. Unfortunately, no well-defined position on this point can be established which would apply in all or even a large number of banks. Many banks find that they can support community leadership through the Chamber of Commerce or Industrial Committee. This approach keeps a large group of local citizens interested and, likewise, keeps them informed about the problems and disappointments long identified with industrial location efforts.

Bankers may serve as a clearing house for independent organizations such as railroads, utility companies, real-estate brokers, land owners, and others who have special services or properties to offer industry. Bankers can make calls on prospects in cities where they have other business. These calls can be more effective if the bankers are well informed. We find that many industries seeking plant locations appreciate the confidential discussion of their plans with a banker.

★ ★ ★

MR. CHAUNCEY W. LEVER[4] (South Carolina) considers the importance of community attractiveness—adequate facilities and a pleasant, enticing environment—in securing new industry. Of a list of forty factors compiled by the South Carolina National Bank's Commercial and Industrial Development Division, Mr. Lever selects five as leading ones:

1. *"A Chamber of Commerce with a live-wire manager."*

I believe that an aggressive and well-organized chamber of commerce with a capable manager is invaluable to any community and that every community should have a well-financed and active chamber.

2. *"Young couples have little trouble finding places to live."*

Housing is a critical matter, and therefore I have marked this item because young couples must be able to find places to live if the community is to grow and to receive the benefits of their residence. New industrial prospects are sensitive to this fact.

3. *"Schools have plenty of room for students."*

I have found from experience in dealing with industrialists that the school factor is considered basic and is investigated by virtually all our prospects when considering various locations as sites for new operations.

4. *"A modern hospital is within the trading area."*

Hospital and health service is so important in modern life that no one will be surprised to learn that industrial prospects pay much attention to this.

5. *"There's as much interest in local as national elections."*

This factor is indicative of the ever-growing importance of what may be termed the "local and industrial relations climate." This climate is often times the deciding factor in the plant location decision.

He next lists:

Town entrances are free from junk, shacks, and billboards.
Newcomers quickly feel that they are part of the town.
There is a hotel or motel a visitor would enjoy.
The business sector has a modern, prosperous look.

Other items on the list are concerned with such factors as labor supply, transportation facilities, churches, recreational facilities, vocational training, newspapers, and utilities.

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[3]Mr. Thurston is in the Advertising & Public Relations Department, Union Planters National Bank, Memphis, Tennessee.

[4]Mr. Lever is vice president, the South Carolina National Bank; National, Correspondent Bank, and Commercial and Industrial Development Divisions; Columbia, South Carolina.

July 1961

ATLANTA AREA ECONOMIC INDICATORS

	July 1961	June 1961	% Change	July 1960	% Change	% Change 7 months '61 over 7 months '60
EMPLOYMENT						
Job Insurance (Unemployment) Payments	$614,859	$724,935	—15.2	$403,989	+52.2	+92.7
Job Insurance Claimants	8,573	9,422	—9.0	8,560	+0.2	+49.4*
Total Non-Ag. Employment	364,250	367,350r	—0.8	360,000	+1.2	—1.0*
Manufacturing Employment	82,850	82,350r	+0.6	83,050	—0.2	—5.8*
Average Weekly Earnings, Factory Workers	$83.79	$83.58r	+0.3	$82.41	+1.7	+2.2*
Average Weekly Hours, Factory Workers	39.9	39.8	+0.3	40.4	—1.2	+10.7*
Index of Help Wanted Ads (Seasonally adjusted, 1947-49 Avg.—100)	144.3	141.0	+2.3	143.4	+0.6	—15.8
CONSTRUCTION *(See note below)*						
Number of Building Permits§	798	956	—16.5	673	+18.6	+18.1
Value of Building Permits§	$3,391,448	$10,035,071	—66.2	$5,268,775	—35.6	—23.7
Employees	20,650	23,450r	—12.0	21,500	—4.0	+1.9*
FINANCIAL†						
Bank Debits (Millions)	$2,169.6	$2,185.0	—0.7	$2,018.8	+7.5	+3.1
Bank Deposits (Millions)	$1,417.3	$1,383.8	+2.4	$1,289.0	+10.0	+25.8*
OTHER						
Department Store Sales Index	182	170	+7.1	174	+4.6	—1.8¶
Retail Food Price Index	118.9	116.6	+2.0	117.4	+1.3	+1.2**
Number of Telephones in Service	390,532	389,263	+0.3	373,680	+4.5	+5.0**

r—Revised *Average month **End of period ¶—Based on retail dollar amounts
§City of Atlanta only †Data from members of the Federal Reserve System only

Sources: All data on employment, unemployment, hours, and earnings: Employment Security Agency, Georgia Department of Labor; Number Help Wanted Ads: Atlanta Newspapers, Inc.; Building permits data: Office of the Building Inspector, Atlanta, Georgia; Financial data: Board of Governors, Federal Reserve System; Retail Food Price Index: U. S. Department of Labor; Department Store Sales Index: Federal Reserve Bank of Atlanta and Board of Governors, Federal Reserve System; Telephones in Service: Southern Bell Telephone and Telegraph Company.

Note: The figures given in last month's issue for number and value of building permits for June were in error. They represented data for July. June figures are shown correctly here.

ATLANTA

BUSINESS ACTIVITY

After showing gains in each month of the second quarter of this year, NONAGRICULTURAL EMPLOYMENT took a slight dip in July. This loss of some 3,100 jobs was largely attributable to an industry-wide strike in construction affecting over 50 contractors in the Metropolitan Area. Along with this was the closing of schools for the summer which accounted for 950 less jobs in the government category.

Since most of the employment loss was not insured, JOB INSURANCE PAYMENTS and the number of JOB INSURANCE CLAIMANTS both turned down substantially in July. In fact, the July payments of $614,859 represented the lowest sum paid in any one month since July a year ago. The NUMBER OF CLAIMANTS was also the lowest of the year. A further encouraging sign was seen in the INDEX OF HELP WANTED ADS, which jumped to 144.3 in July, the highest since June of last year. This is generally regarded as a good indication of the demand for labor in the area.

AVERAGE WEEKLY EARNINGS of factory workers reached the highest peak ($83.79) since October 1960. This is expected to rise slightly higher in August as the auto plants resume full production.

The construction picture is still somewhat mixed. The NUMBER OF BUILDING PERMITS issued by the City of Atlanta Inspector of Buildings' Office for the first seven months of the year is 18 per cent higher than the same period last year, but the VALUE OF BUILDING PERMITS, usually a better indicator of future activity, is down 24 per cent from last year. Interestingly enough, despite the construction strike, the number of EMPLOYEES IN CONSTRUCTION during the first seven months of 1961 was still 2 per cent over last year.

The RETAIL FOOD PRICE INDEX took a sizable jump in July, reaching 119, the highest level on record in three years. Retail trade has been steadily improving in Atlanta since around May.

John R. O'Toole

VANISHING SHELF SPACE

(Continued from page 16)

they might create the equally serious problem of reduced competition in the food industry.

It will be noticed that one of the characteristics of any such leasing arrangement would be the requirement that experimental work on the effects of shelf space like that suggested here would be the necessary first step in regularizing the shelf-space market.

Summary

There are strong theoretical and practical reasons for believing that food product sales vary directly with allotments of shelf space but that this is not a simple linear relationship. Also, it is probable that different products respond differently to changes in shelf space.

An examination of this relationship seems likely because of the tremendous pressure being placed on shelf space by a constantly expanding number of products and the capabilities and interests of retail food store management.

Further knowledge of relationships in the area promises to increase the already high levels of efficiency in food marketing. Also, it could well reduce the apparently different interests of retailers and processors.

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Research Studies Available

RESEARCH PAPER NUMBER 21

Urban Transportation Dilemma

. . . Stephen Paranka

42 + ii pp., 8½ x 11 in.
(Price—50¢ plus 2¢ sales tax in Georgia)

The problem of traffic congestion is a familiar one. Dr. Paranka's study of the urban situation points out some of the factors which have led to the increased use of automobiles and the decline in use of mass transit. He suggests the need for a program of planning for future urban transportation—a program which provides for an administrative planning body with regulatory jurisdiction over all aspects of urban transportation, with responsibility for making capital improvements to the transportation system, and for whose operations the necessary revenue would be specifically provided.

Dr. Paranka is associate professor of marketing, School of Business Administration of Georgia State College of Business Administration.

RESEARCH PAPER NUMBER 20

Man-Made Fibers: A Growth Industry for the Diversifying South

. . . Jack Blicksilver

60 + ii pp., 8½ x 11 in.
(No charge for single copies)

Two broad hypotheses are examined in this study of the man-made fiber industry: (1) that man-made fiber production, having experienced a rapid rate of growth during the last fifty years in this country, is a highly desirable industry for the region in which it locates; and (2) that the industry enjoys a comparative advantage in the South.

Dr. Blicksilver concludes from his study that the textile South possesses the market, materials, and labor to attract the bulk of the facilities for the commercial production of man-made fibers, a dynamic industry generally characterized by stability and high rates of return.

Dr. Blicksilver is associate professor of economic history, School of Business Administration, Georgia State College of Business Administration.

For copies of the studies named above, send requests to the Bureau of Business and Economic Research, School of Business Administration of Georgia State College of Business Administration, 33 Gilmer Street, S. E., Atlanta 3, Georgia.